

IN THE CLAIMS:

Please amend claims 12 and 13 as presented in the following listing of claims. This listing of claims will replace all prior versions and listings of claims in the application.

1. (Original) A computer implementation method, comprising:
receiving database record information at a client computer system from a database server;
modifying the database record information at said client computer system using a first computer programming language;
transmitting the database record information with modifications to an application server;
converting the modifications, at the application server, to calls of a second computer programming language of a computer application; and
executing the second computer language programming calls to invoke functions of the computer application to cause database record changes at said database server that correspond to the modifications to the database record information.
2. (Original) The method of claim 1 further comprising the step of determining when a user has completed making changes to said database record information at said client computer system.

3. (Original) The method of claim 1 wherein said step of transmitting said modifications to said application server comprises transmitting to said application server a list of changes made to said database record information.

4. (Original) The method of claim 3 wherein said application server determines the changes that have been made to said database record information from said list and converts said changes to functions of said application that cause modifications to a database record of said database server that corresponds to the modifications made at said client computer system.

5. (Original) The method of claim 1 wherein said database record information represents at least a subset of a table of said database server and said step of modifying comprises inserting an element in said subset of said table at said client computer system.

6. (Original) The method of claim 5 further comprising determining, at said application server, an EJB object that corresponds to the table subset modified at said client computer system; and creating a map to enable inserts into a table of said database server that corresponds to said step of inserting at said client computer system.

7. (Original) The method of claim 6 further comprising:

identifying all create methods of said EJB object and of sub-objects of said EJB object;

determining which columns of tables of said database correspond to arguments of identified create methods; and

wherein said step of creating said map comprises mapping said columns to arguments of the create methods that correspond to said columns.

8. (Original) The method of claim 7 further comprising determining, at said application server, the location of the insert into said subset of said table and mapping the element inserted into said subset to an argument of the identified create method that is operative to cause said element to be inserted into said table of said database server.

9. (Original) The method of claim 8 further comprising executing the identified create method, at the application server, to cause the element to be inserted in said table of said database.

10. (Original) A method of interfacing between a client computer system and a database server, comprising the following steps:

receiving, at an application server, a set of commands from a client computer system to modify a database record of a database server;

identifying certain application instructions of an application, at said application server, that are operative to insert elements into a database record;

enabling said certain application instructions to be correlated to certain commands received from said client computer system that indicate the insertion of an element into said database record;

executing selected certain application instructions that correspond to said certain commands, wherein execution of said selected certain application instructions cause the invocation of a database call to insert elements into said database record corresponding to said certain commands.

11. (Original) The method of claim 10 wherein said step of identifying occurs when said application is being configured for execution at said application server.

12. (Currently Amended) The method of claim 11 wherein said step of enabling comprises identifying columns of database records that ~~may be~~ are operated on by the identified certain application instructions.

13. (Currently Amended) The method of claim 12 further comprising mapping the columns that ~~may be~~ are operated on to the identified certain application instructions.

14. (Previously Presented) The method of claim 13 further comprising updating elements of the columns associated with the identified application instructions based on the certain commands.

15. (Original) The method of claim 14 wherein said commands are from a different type database access protocol language than said certain application instructions.

16. (Original) The method of claim 15 wherein said step of identifying said certain application instructions comprises identifying create methods.

17. (Original) The method of claim 16 wherein said database record is a table of said database.

18. (Original) The method of claim 17 wherein said create method is part of an EJB that accesses the table.

19. (Original) The method of claim 18 wherein said EJB is identified prior to identifying said create methods.

20. (Original) A computer readable medium, operative to serve as a database interface, having instructions which when executed by a computer system perform a method comprising the following steps:

identifying first level software components of an application on an application server, that contain sub-level software components, said sub-level software components for accessing data input fields of a database;

exposing the first level software components in association with operations of sub-level software components for accessing the information contained in the data input fields; mapping modification commands received, at the application server, from a client computer system to the identified first level and sub-level software components that correspond to the modification commands; and

executing the identified software components to update said database in accordance with the modifications received from the client computer system.

21. (Original) The medium of claim 20 wherein said first level software components is an EJB object and said sub-level software components are sub-objects of said EJB object.

22. (Original) The medium of claim 20 wherein said step of executing comprises executing software components that produce SQL calls to said database to modify said database.

23. (Original) The medium of claim 20 wherein said modification commands are from an application designed for direct access to a relational database.

24. (Original) The medium of claim 23 wherein said identified first level and sub-level software components are EJB components.

25. (Previously Presented) A computer implemented method for interfacing between a client computer system and a database server, comprising the following steps:

receiving, at an application server, the result of a query request as modified by a client computer system;

determining, at the application server, the modifications made to the result of the query request;

converting, at said application server, the modifications from a first programming language into a general computer programming language command for accessing a database; and

executing said general programming language command to produce a database protocol command to modify a database record to correspond to the query request as modified by the client computer system.

26. (Previously Presented) The method of claim 25 wherein said general computer programming language command is an Enterprise Java Bean (EJB) call.

27. (Original) The method of claim 25 wherein the database protocol command is a Structured Query Logic (SQL) call.

28. (Original) The method of claim 25 wherein the application server receives the database call from a client computer system.

29. (Original) The method of claim 25 further comprising generating a database call to a database in response to executing the general computer language programming call.

30. (Original) The method of claim 25 further comprising generating database calls to a database in response to executing the general computer language programming calls;

analyzing the components to determine the correspondence between database elements and the elements of the components that access the database elements; and
creating a map that identifies the correspondence.